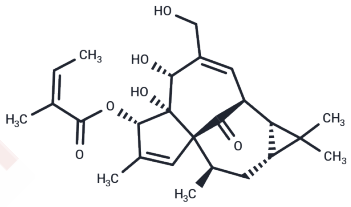
Data Sheet (Cat.No.TN1047)

TargetMol

Ingenol mebutate

Chemical Properties



CAS No. : 75567-37-2

Formula: C25H34O6

Molecular Weight: 430.53

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Ingenol mebutate (Ingenol 3-Angelate) is a potent activator of PKC subtypes including PKC-α, PKC-β, PKC-γ, PKC-δ, and PKC-ε with Kis of 0.3, 0.105, 0.162, 0.376, and 0.171 nM. Ingenol mebutate exhibits antiinflammatory and antitumor activity.
Targets(IC50)	HIV Protease,gp120/CD4,PKC
In vitro	Ingenol mebutate shows EC50s for PKC-α, PKC-βI, PKC-βII, PKC-γ, PKC-δ, PKC-ε and PKC-μ of 13, 4.37, 10.5, 38.6, 1.08 and 0.9 nM in WEHI-231 cells. The EC50s are 198, 69.1, 4.6, 1 nM in HOP-92 cells for PKC-α, PKC-βI, PKC-ε, PKC-μ and 635, 146, 4.7, 1.1, 30 nM for PKC-α, PKC-βI, PKC-δ, PKC-ε, PKC-μ in Colo-205 cells. Ingenol mebutate sensitizes WEHI-231 cells, HOP-92 and Colo-205 cells with IC50s of 1.41, 3.24, and 11.9 nM, respectively [2]. Ingenol mebutate (20 nM) induces apoptosis in a PKC-δ dependent manner in primary AML marrow blasts but not in normal myeloblasts[3].

Solubility Information

Solubility	DMSO: 165 mg/mL (383.25 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (23.23 mM),Solution. 10% DMSO+90% Saline: < 10 mg/mL (23.23 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3227 mL	11.6136 mL	23.2272 mL
5 mM	0.4645 mL	2.3227 mL	4.6454 mL
10 mM	0.2323 mL	1.1614 mL	2.3227 mL
50 mM	0.0465 mL	0.2323 mL	0.4645 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Ghoul A, et al. Epithelial-to-mesenchymal transition and resistance to ingenol 3-angelate, a novel protein kinase C modulator, in colon cancer cells. Cancer Res. 2009 May 15;69(10):4260-9.
Kedei N, et al. Characterization of the interaction of ingenol 3-angelate with protein kinase C. Cancer Res. 2004 May 1;64(9):3243-55.
Hampson P, et al. PEP005, a selective small-molecule activator of protein kinase C, has potent antileukemic activity mediated via the delta isoform of PKC. Blood. 2005 Aug 15;106(4):1362-8.